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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,976	11/04/2003	David L. Rhodes	486.1003US	4497
23280 7590 05/09/2007 DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			EXAMINER OCHOA, JUAN CARLOS	
			ART UNIT 2123	PAPER NUMBER
			MAIL DATE 05/09/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/700,976	<b>Applicant(s)</b> RHODES, DAVID L.	
	<b>Examiner</b> Juan C. Ochoa	<b>Art Unit</b> 2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>26 March 2007</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The amendment filed 3/26/07 has been received and considered. Claims 1–30 are presented for examination.

#### ***Specification***

2. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code, see page 4, paragraph [005], last line and page 8, line 6. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

#### ***Claim Objections***

3. Claim 7 is objected to because of the following informalities:
4. Claim 7 line 2 includes the misspelled term “styles”. Examiner interprets as “style” for examination purposes.
5. Claim 17 line 2 includes the comma “TCP, UDP”. Examiner interprets as “TCP and UDP” for examination purposes.
6. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims 1, 2, 4, 5, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Somasegar et al., (Somasegar hereinafter), U.S. Patent 5,862,362. (See IDS dated 04/12/04).

9. As to claim 1, Somasegar discloses a method for virtually simulating actual networked applications within a network simulation, comprising the steps of: initiating a server that interfaces to a network simulator (see "the network failure simulation tool 120 implements a point-of-failure at the NDIS interface layer 70 of the network I/O architecture 50 (FIGS. 2-3)" in col. 6, lines 18–21), the server comprising functionality for establishment (see "The network server 66 provides facilities which allow access to resources of the computer system 20 by other machines on the networks 52-53 . The network server 66 provides facilities which allow access to resources of the computer system 20 by other machines on the networks 52-53. In the Windows NT operating system, the redirector 64 and the server 66 support the SMB protocol for compatibility with existing MS-NET and LAN Manager servers (thus allowing access to MS-DOS, Windows, and OS/2 systems from Windows NT), as well as the NCP protocol for communication with Netware-compatible servers and clients" in col. 4, lines 51–60) of a bidirectional mapping of each of one or more application codes to a simulated node or a communication port based on a communication technology (see "the network redirector 64 provides facilities necessary for one Windows NT-based machine to access resources on other machines on a network" in col. 4, lines 47–50); initiating one or more client interfaces, the client interfaces being aware of the server (see "NDIS" in col. 6, lines 18–34); providing network application code(s) to make use of the client interfaces,

the network application code(s) able to communicate with the server (see col. 4, lines 43–47); the network simulator being able to interoperate with the server (see col. 6, lines 35–67) such that the application code's communication appears to originate from a simulated node to which it is mapped (see “it appears to the protocol drivers 60-62 that the packets being sent were successfully passed to the lower netcard driver layer 57 and sent on the networks 52-53. Likewise, it appears to the netcard drivers 58-59 that the packets being received were successfully passed to the higher protocol layer 63 and received by the intended application 56, or the network server 66” in col. 7, lines 1–25); and modifying, via the one or more client interfaces and the server, the network application code by removing or inserting messages to or from simulated nodes (see col. 1, lines 40–57).

10. As to claim 2, Somasegar discloses a method for virtually simulating actual networked applications within a network simulation, comprising the steps of: initiating one or more servers to interface to a network simulator (see col. 4, lines 51–54); initiating one or more clients to interface with one or more servers, where the clients are aware of the one or more servers (see “NDIS” in col. 6, lines 18–34); bridging application code(s) via use of the client(s) so that the network application code can communicate with the server(s) (see col. 4, lines 47–50); mapping the communication of the application code to a simulated node, communication from the application code now appearing to originate from the simulated node and insertion of and extraction of messages or packets from or to application code to simulated node via the one or more clients and servers (see col. 1, lines 40–57).

11. As to claim 4, Somasegar discloses a method wherein the network simulator is IP based (see col. 4, lines 34–36).
12. As to claim 5, Somasegar discloses a method wherein the network simulator further comprises an upper layer protocol (see col. 4, lines 34–36).
13. As to claim 15, Somasegar discloses a method wherein the network simulator is IP based (see col. 4, lines 34–36).
14. As to claim 16, Somasegar discloses a method wherein the network simulator further comprises a protocol (see col. 4, lines 34–36).

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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17. Claims 3, 6–14 and 17–30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Somasegar as applied to claims 1 and 2 above, taken in view of Liu et al., (Liu hereinafter), U.S. Patent 6,134,514. (See IDS dated 04/12/04).

18. As to claim 3, while Somasegar discloses a method for virtually simulating actual networked applications within a network simulation, Somasegar fails to disclose a method wherein the step of initiating a server further comprises the step of establishing bidirectional mapping of each application code to the simulated nodes or communication ports based on the communication technology.

19. Liu discloses a method wherein the step of initiating a server further comprises the step of establishing bidirectional mapping of each application code to the simulated nodes or communication ports based on the communication technology (see col. 8, lines 10–16).

20. Somasegar and Liu are analogous art because they are both related to event simulation of computer communication networks.

21. Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to utilize the bidirectional mappings of Liu in the method of Somasegar because Liu develops a distributed event simulation system for processing time-stamped events in chronological order for simulating a multinode communications network (see col. 2, line 60 to col. 3, line 11), and as a result, Liu reports the following speedup over his prior art: 1.62 for a 160-node network and very close to 2 for large-scale, about 1000 nodes, networks (see col. 13, lines 12–16).

22. As to claim 6, Liu discloses a method wherein the protocol is selected from the group consisting of TCP and UDP upper layer protocols (see col. 6, lines 52–53).

23. As to claim 7, Liu discloses a method wherein the application codes and network application code further utilize a communication styles and wherein communication style is selected from the group consisting of point-to-point, anycast, multicast and broadcast (see “broadcast” in col. 6, lines 21–25).

24. As to claim 8, Liu discloses a method wherein the network simulator comprises a plurality of network simulators (see Fig. 1).

25. As to claim 9, Liu discloses a method wherein the server comprises a plurality of servers (see Fig. 1).

26. As to claim 10, Liu discloses a method wherein the mapping of application code to the simulated node is dynamic (see col. 8, lines 10–16).

27. As to claim 11, Liu discloses a method wherein the network simulator executes in real-time (see Fig. 1).

28. As to claim 12, Liu discloses a method wherein the execution time of the network simulator is configurable (see “pace of the execution of the simulation events can be regulated” in col. 8, lines 5–9).

29. As to claim 13, Liu discloses a method wherein at least one of the client interfaces and the server are implemented via dedicated separate hardware (see Fig. 1).

30. As to claim 14, Liu discloses a method wherein the application code is executed in parallel over a distributed system (see col. 3, lines 4–11).



31. As to claim 17, Liu discloses a method wherein the protocol is selected from the group consisting of TCP, UDP upper layer protocols (see col. 6, lines 52–53).

32. As to claim 18, Liu discloses a method wherein the application code further utilizes a communication style, and wherein the communication style is selected from the group consisting of point-to-point, anycast, multicast and broadcast (see “broadcast” in col. 6, lines 21–25).

33. As to claim 19, Liu discloses a method wherein the network simulator comprises a plurality of network simulators (see Fig. 1).

34. As to claim 20, Liu discloses a method wherein the one or more servers comprise a plurality of servers (see Fig. 1).

35. As to claim 21, Liu discloses a method wherein the mapping of application code to simulated network node is dynamic (see col. 8, lines 10–16).

36. As to claim 22, Liu discloses a method wherein the network simulator executes in real-time (see Fig. 1).

37. As to claim 23, Liu discloses a method wherein the execution time of the network simulator is configurable (see “pace of the execution of the simulation events can be regulated” in col. 8, lines 5–9).

38. As to claim 24, Liu discloses a method wherein at least one of the clients and servers are implemented via dedicated separate hardware (see Fig. 1).

39. As to claim 25, Liu discloses a method wherein the application code is executed in parallel over a distributed system (see col. 3, lines 4–11).

40. As to claim 26, Liu discloses a method wherein the server is a plug in to the simulator (see Fig. 1, item No. 60).

41. As to claim 27, Liu discloses a method wherein the server is a plug in to the simulator (see Fig. 1).

42. As to claim 28, Somasegar discloses a system for virtually simulating actual networked applications within a network simulation, comprising: one or more servers (see "one server" in col. 4, lines 43–47), the servers having functionality for: interfacing to one or more network simulators (see col. 4, lines 51–54), mapping the application code to a simulated node, communication from the application code now appearing to originate from the simulated node (see col. 1, lines 40–57), and inserting and extracting messages or packets from an application code (see col. 1, lines 40–57), one or more clients, the clients aware of the server and each having functionality for: interfacing with the one or more servers (see "NDIS" in col. 6, lines 18–34), executing the application code so that the application code can communicate with the server (see col. 4, lines 43–47), and inserting and extracting of messages or packets from the application code (see col. 1, lines 40–57). While Somasegar discloses a system for virtually simulating actual networked applications within a network simulation, Somasegar fails to disclose one or more network simulators. Liu discloses one or more network simulators (see col. 5, lines 41–42).

43. As to claim 29, Somasegar discloses a system wherein the one or more servers have functionality for providing message or packet transfer among simulated nodes and/or application codes (see col. 4, lines 51–54).

44. As to claim 30, Liu discloses a system where the network simulators have functionality for providing message or packet transfer among simulated nodes and/or application codes (see col. 5, lines 51–59).

***Response to Arguments***

45. Applicant's arguments filed 3/26/07 have been fully considered but they are not persuasive.

46. Regarding the IDS objections, the amendment corrected all deficiencies and the objections are withdrawn.

47. Regarding the specification objections, deficiencies remain.

48. Regarding the rejection under 102. Applicant's arguments have been considered, but they are not persuasive.

49. Applicant argues, (see page 9, last paragraph to page 10, 1st paragraph), that Somasegar fails to teach:

"server that interfaces to **a network simulator**" (see "the network failure simulation tool

120 implements a point-of-failure at the NDIS interface layer 70 of the network I/O architecture 50 (FIGS. 2-3)" in col. 6, lines 18–21);

the server comprising functionality for establishment (see "The network server 66 provides facilities which allow access to resources of the computer system 20 by other machines on the networks 52-53. The network server 66 provides facilities which allow access to resources of the computer system 20 by other machines on the networks 52-53. In the Windows NT operating system, the redirector 64 and the server 66 support the SMB protocol for compatibility with existing MS-NET and LAN Manager servers

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(thus allowing access to MS-DOS, Windows, and OS/2 systems from Windows NT), as well as the NCP protocol for communication with Netware-compatible servers and clients" in col. 4, lines 51–60);

of a **bidirectional mapping of each of one or more application codes to a simulated node** or a communication port based on a communication technology" (see "the network redirector 64 provides facilities necessary for one Windows NT-based machine to access resources on other machines on a network" in col. 4, lines 47–50).

50. Applicant argues, (see page 10, 3<sup>rd</sup> paragraph), that Somasegar fails to teach "a network simulator which can interoperate with the server such that the application code's communication **appears to originate from a simulated node** to which it is mapped". Somasegar discloses the network simulator being able to interoperate with the server (see col. 6, lines 35–67) such that the application code's communication appears to originate from a simulated node to which it is mapped (see "it appears to the protocol drivers 60-62 that the packets being sent were successfully passed to the lower netcard driver layer 57 and sent on the networks 52-53. Likewise, it appears to the netcard drivers 58-59 that the packets being received were successfully passed to the higher protocol layer 63 and received by the intended application 56, or the network server 66" in col. 7, lines 1–25).

51. As to Applicant's arguments that the remaining claims are patentable, Applicant's arguments are not persuasive, see refutation of Applicant arguments above.

52. Examiner stated at the end of the rejection that specific figures, columns and lines should not be considered limiting to reference in any way. Taking the entire

reference the Examiner contends that the art supports the rejection of the claims and the rejection is maintained.

***Conclusion***

53. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

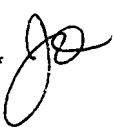
54. Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

55. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan C. Ochoa whose telephone number is (571) 272-2625. The examiner can normally be reached on 7:30AM - 4:00 PM.

56. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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57. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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